iety and memory disturbances such as retained misperceptions of the event and omen formation. In contrast to adults, children are apparently not subject to amnesia or significant denial of the external reality of a violent event. Adolescents, in particular, remain distressed over their vulnerability during an incident. Youngsters may engage in suppressing conscious thoughts about the event as a device to avoid feelings of embarrassment and anxiety. Prominent personality alterations have been reported, including the emergence of "survivor identity" and delinquency. A common finding is an enduring sense of pessimism with a belief in a shortened life expectancy and recurrent dreams of personal death. Some traumatized children have become suicidal or have manifested full depressive episodes. The prognosis for child victims of terrorism will, in a large measure, depend on the family's and community's coping resources and the availability of psychiatric treatment.

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Children at Risk—New Aspects

PREVENTING MENTAL ILLNESS has been at the roots of child and adolescent psychiatry. Its time has come. There will never be enough psychiatrists to care for the mental health needs of the nation. There has been increasing research in the field of risk that has promise for implementing a prevention program. Although correlation is not causation, there is a relationship between risk and a series of spectral outcomes that occur in adolescence and early adulthood. For instance, it has been shown that continued aggressive and asocial behavior in preschool children is a risk factor for later delinquency and that the fetal alcohol syndrome is a predictor of poor school performance and mild mental retardation. Risk factors in children are predictors of a wide variety of later disorders. Common risk factors in families and children are psychotic parents, depressed parents, divorce and parental disharmony, alcoholism or substance abuse in family, conduct disorders, sexual and physical abuse, loss and separation, mental retardation, chronic illness and poverty.

Risk factors that develop in adolescence, such as teenaged pregnancy and substance abuse, may be risk factors for the next generation of children. Significant outcomes for risk factors are substance abuse, delinquency, suicide and homicide, school dropout, teenaged pregnancy, psychoses and depression and learning disabilities.

Children who are victims of natural disasters, such as "acts of God," or those who witness murder, rape or beatings of a parent or sibling are at risk for the posttraumatic stress disorder. Early intervention is essential for prevention. Physicians often see divorced parents or parents who need to be admitted to hospital for mental or physical illness but do not pay sufficient attention to the plight of the children in these situations. Often these children will benefit from counseling or therapy. Research will continue to define risk factors and proper interventions. Preschool day care, early periodic screening and developmental testing are preventive programs that need to be developed. Research and interventive programs will have an impact on the prevalence and incidence of mental illness in our society. Physicians need to be aware of opportunities for prevention.

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Family Involvement in Managing Schizophrenia

SCHIZOPHRENIA is a severe and disabling illness with a prevalence of about 1% around the world. Symptoms include looseness of associations, delusions and auditory hallucinations, which usually begin in the second or third decade of life and in about two out of three patients persist or become more severe throughout life. Antipsychotic medications are effective at controlling some of these symptoms, but their use involves a one in five risk of tardive dyskinesia, and patients often remain less symptomatic but severely impaired in their ability to carry on the activities of a normal life.

Some decades ago, families were thought to be implicated as a causal agent in schizophrenia. It was believed that double-binding communication patterns created the disease in children. Recent research, however, on the genetics of schizophrenia among twins and adoptive offspring indicates a strong but non-Mendelian genetic factor in schizophrenia. Having a biologic parent with schizophrenia raises the risk of getting the disease from about 1% to 7%.

Attention in family research shifted from causation to patient adjustment. A factor identified as "expressed emotion" was found to be predictive of decompensation among schizophrenic patients. This concept had two components: criticism and overinvolvement. More recently, an aspect of family environment that prevents rather than promotes relapse was identified. This variable, with the similar name "expressiveness," consists of a family's tendency to solve problems together rather than separately, to share information. Schizophrenic persons from families with high scores on the expressiveness subscale of the Family Environment Scale are less likely to be readmitted to hospital.

These observations have led to various new interventions with families of persons with schizophrenia variously labeled "sociotherapy," "psychoeducation" and "family therapy." These interventions have been designed to teach families about the illness, the importance of a consistent antipsychotic medication regimen, the warning signs of decompensation, ways to provide consistent structure in a patient's daily activities and means of reducing abrasive contact between patient and family, thereby reducing the hostility and overinvolvement that has been found to provoke decompensation. Several of these studies have shown success in changing the family atmosphere and reducing decompensation. Schizophrenic pa-

tients suffer impairment in their abilities to think and to maintain social relationships. Indeed, their social networks are smaller than those of normal people. It therefore makes sense to develop interventions that help these networks better support their patient members.

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Childhood Depression—A Recent Phenomenon?

ADOLESCENT DEPRESSION and some of its manifestations in violence, anger, suicide and substance abuse have been described and a good deal of research conducted into the etiology, diagnosis and treatment. Only within the past five years or so has any attention been paid to depression in children, with the documentation of both severe depression with suicidal ideation and suicide attempts in young children of primary school age.

In several adolescent suicide studies, an effort to retrospectively study the behaviors and school records of actual suicides has revealed some common diagnostic criteria. Review of the cumulative records of ten suicidal adolescents—that is, actual suicides and severe previous attempts—shows that by the third, fourth and fifth grades there were signs of academic failure, the children were described as loners without friends and almost every teacher described them as looking sad. Parent conferences showed chronic alcoholism of one or both parents or divorce (or both). Death of a parent or sibling was also frequently noted. Histories of child physical and sexual abuse were found in four of the ten cumulative records.

A current review of the indicators of childhood abuse has been important in helping educators to identify children at risk for abuse and subsequent depression or antisocial, angry behavior toward children and adults.

Recently depression has been documented in preschool children in the general population. The Children's Affective Disorder Scale was administered and a parent rating scale given; teachers' observations of sad, isolated or overly hostile children were closely correlated with the results of the tests.

Treatment of children who are depressed has reportedly been successful. Similarly aged children with similar problems have benefited from group therapy with a trained group leader. For very young children, activity or play groups provide peer interaction and tangible signs of adult concern and caring. Family therapy or, at least, work with a parent or parents to demonstrate how caring can be shown by attention to a child's productions of drawings or play is effective in reducing depression. Playing games is often mutually enjoyable to parents and children after the parents have been helped to be playful. Dealing with abusive parents by reporting them to child protective services may or may not remove the abusive parent but should halt the abuse once a child and family are being monitored.

The use of antidepressive medications, especially the tricyclic antidepressants, has proved effective in doses of 25 to 50 mg per day, depending on the size of a child.

We are obviously not talking about childhood depression due to hospital admission for acute physical disease or depression due to dealing with chronic illness like diabetes or life-threatening diseases. Physicians who see children and families can often identify the child who looks sad or despondent or who is nonresponsive to anyone's efforts to engage the child in conversation. At our Children's Psychiatric Hospital where children from age 3 years to 15-year-old adolescents are treated as inpatients, many young depressed patients have been referred by physicians. These are children who have experienced multiple stresses. Some have been abused and have also lost a parent through divorce or death. Many of these children not only appear sad but have great difficulty in trusting adults and have sleeping problems, generally nightmares. Some of these children have retreated into psychotic behavior, hearing threatening voices and staring off into space as if they have visual hallucinations. These children have done well with a combination of antidepressant medications and a caring staff, effective group and individual therapy and an effective special education program that promotes a better self-image through increased competence.

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Antidepressant Treatment for Bulimia

CERTAIN ANTIDEPRESSANT MEDICATIONS, particularly imipramine hydrochloride, desipramine hydrochloride and the monoamine oxidase inhibitor phenelzine sulfate, are useful in treating bulimia, the binge-purge syndrome. Double-blind studies have shown the superiority of an active medication over placebo, whether or not the bulimic patient is clinically depressed. Although as many as 75% of bulimic patients may be depressed, anxiety and personality disorders often coexist as well. The mechanisms of action of the medications are unclear, but may be through effects on anxiety or depression or more directly.

While medications may be effective, individual and group therapies using cognitive-behavioral methods that attend to eating patterns, nutrition and psychological issues have about the same success rate as does the use of medications alone. Nevertheless, several of the medication studies were conducted primarily with patients for whom previous trials of psychotherapy had failed.

The prudent approach to treating bulimia is to provide both psychological and nutritional counseling with a carefully worked out meal plan. If a patient does not improve within